

# PATENT ABSTRACTS OF JAPAN

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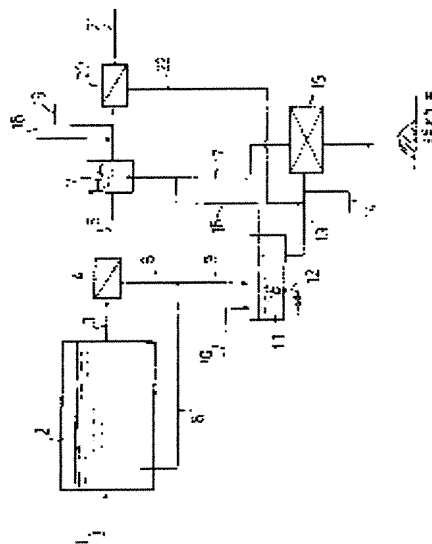
## (54) TREATMENT OF ORGANIC FILTHY WATER

### (57)Abstract:

**PURPOSE:** To save an installation cost for a solid/liquid separation stage and its running cost by dehydrating excess activated sludge after treating it anaerobically and aerobically together with miscellaneous waste water, then subjecting separated water to coagulation and membrane separating together with biologically treated water.

**CONSTITUTION:** A major portion of concentrated sludge 6 separated in a solid/liquid separation stage 4 is recycled as returned sludge 8, and BOD and COD of the miscellaneous waste water 10 are reduced and N, P, etc. therein are removed biochemically in an anaerobic-aerobic biological treating stage 11 from a residual portion as excess

sludge 9 together with the miscellaneous waste water 10. Then, the sludge is precipitated and fed to a sludge dehydrator 15 after adding a dehydrating additive 14. On one hand, supernatant water 16 from the anaerobic-aerobic treating stage 11 and separated water 17 from the sludge dehydrator 15 are fed to a tank 7 for biologically treated water, and mixed with biologically treated water which has been nitrated and denitrified biologically. After forming flocculated floc by admixing an inorganic flocculant 18 and a pH adjusting agent 19, the flocculated floc is separated in a membrane separation stage 20. Thus, completely clear water as a membrane permeate 21 is discharged.



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